

## CONSTRAINT ANALYSIS IN MARKETING OF POTATOES IN TELANGANA STATE OF INDIA

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### ABSTRACT

*In Telngana state, Medak district alone accounts for more than 50 per cent of total production of potatoes, which is having suitable environmental conditions and soils for potato cultivation in rabbi season. The Garrett ranking analysis of constraints faced by the farmers reported that, price fluctuations was ranked as the most important constraint with mean score value 77.96, followed by lack of storage facilities (71.78). Wholesalers and retailers reported that, the major constraints felt by them was more spoilage losses (80.80), followed by fault in weighing (73.00). There is a need for providing facilities/ concessions for promoting the export of the produce, in case of glut in the market to stop the distress sale. Production price should be stabilized by fixation of minimum and maximum prices. Provision of cold storage facilities nearer to farmers at village, which mainly controls the cost of seed potato, need to purchase the produce from the farmers directly to increase the producer share in consumer rupee are some of the policies, raised from the study.*

**KEYWORDS:** Constraints, Garret Technique, Marketing & Potato, Ranking

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### INTRODUCTION

Among all the vegetables, Potato (*Solanum tuberosum* L.) is one of the major food crops, grown in more than 100 countries in the world. Potato is consumed by more than one billion people in the world. The FAO of UN reported that, the world production of potatoes in 2010 was about 324 million tonnes. Just over two thirds of the global production is eaten directly by humans with the rest being fed to animals or used to produce starch. This means that, the annual diet of an average global citizen in the first decade of the 21st century included about 33 kg (or 73 lb) of potato. However, the local importance of potato is extremely variable and rapidly changing. China is now the world's largest potato-producing country, with 88.4 million metric tonnes and India is in second position with 42.3 million metric tonnes,[3] nearly one third of the world's potatoes are harvested in China and India.

Potato has emerged as fourth most important food crop in India after rice, wheat and maize. In India, Potato is cultivated in almost all states under diverse agro-climate conditions and bulk of the potatoes are grown in winter season, under short day conditions and harvested from January to March. India has been exporting potatoes since 1970's. The states of Uttar Pradesh, West Bengal, Punjab, Bihar and Gujarat accounted for more than 80% share in total production. In India, Uttar Pradesh (138.69 lakh tonnes), West Bengal (115.50 lakh tonnes) Bihar (68.42 lakh tonnes), Gujarat (24.99 lakh tonnes) and Punjab (21.29 lakh tonnes) are the major states producing the potato crop. Telangana's production is 60,802 tonnes of potatoes, per annum. In Telangana, Medak district occupied the highest area (4,297 ha) and production (38,853 tonnes) [3], Medak district alone accounts for more than 50 per cent of total production of potato in the state. It has suitable environmental conditions and soils for

potato cultivation in *rabi* season.

Potatoes are mainly sold in the regulated markets by the farmers. In Telangana, Hyderabad is the major market which attracts the largest share of arrivals of vegetables, from where the produce will move to the other parts of the state. The major arrivals of potatoes in these markets are from December to March months, corresponding to *rabi* crop harvest in the state. During off-season, potato from other states like Punjab and Uttar Pradesh will arrive in these markets. The crop is important in human diet and also provides quicker income to the farmers. But the fluctuating prices, presence of large number of intermediaries, unorganized marketing and low marketing efficiency leads to less producer's share in consumer's price, in the light of these facts it is felt necessary to conduct a micro level study, to analyze the constraints faced by different stakeholders in the marketing of potatoes.

## METHODOLOGY

Four stage sampling technique was used for the selection of district, mandals, villages and respondents. Medak district was purposively selected for the study, as it is the highest potato producing district in the state. In Medak district, all the mandals growing the potato crop were arranged in descending order of the area under potato crop and the first two mandals viz., Zaheerabad and Jharasangam which have highest area were selected-for the present study. Two villages from each selected mandal were chosen purposively using the above said procedure, making the total number of villages to four. The selected villages were Alcole, Ranjole, Kuppanagar and Bidekanna. From each selected village, a sample of 30 farmers were selected randomly, thus the total constitutes of 120 farmers. Further 10 wholesalers and 10 retailers were selected at random to achieve the objective. The necessary information required for the research was collected through opinion survey, to identify the marketing constraints by personally interviewing different stakeholders. The study was conducted during the Agricultural year 2013-14.

### Constraints Perceived by the Farmers / Wholesalers / Retailers

Garrett's Ranking Technique

$$\text{Percent position} = \frac{100 (R_{ij} - 0.50)}{N_{ij}}$$

Where,

$R_{ij}$  is the rank given by  $i^{\text{th}}$  item by  $j^{\text{th}}$  individual

$N_{ij}$  is the number of items ranked by the  $j^{\text{th}}$  individual

(Note: The percent position of each rank is converted into scores, by referring tables given by Garrett and Woodworth. Then for each factor, the scores of individual respondents are added together and divided by the number of respondents, for whom scores are added. The mean scores for all the factors are ranked by arranging in descending order). Similar technique was also used by [6]

## RESULTS AND DISCUSSIONS

The opinion survey of Garrett's ranking analysis revealed that, farmers price fluctuations was ranked as the most

important constraint with mean score value 77.96, followed by lack of storage facilities (71.78), further followed by high marketing costs (64.47), high cost of cultivation (59.60), high post harvest losses (55.06) and high commission charges (49.40) *etc.* Most of the farmers did not get the remunerative price, for their produce. At APMC (Agricultural Produce Market Committee), the prices of potatoes were changed based on the demand and supplies; hence most of the farmers felt price fluctuations as the major constraint. As the potato is a highly perishable commodity, due to the lack of cold storage facilities, farmers were unable to store their produce even for few days and for every season, farmers are purchasing the seed potato from Northern states of the country, which is becoming highly expensive. Because of this, it was noted as one of the major constraints. Next major constraint reported is high marketing costs, which included the packing, transporting and labor charges *etc.* The other constraints felt by the farmers in the study area are fault in weighing at Market Committee, lack of marketing information and inadequate facilities at the Market Committee. The constraint's analysis of farmers is represented in Table 1.

In case of wholesalers, the major constraints identified are more spoilage losses with mean score value 80.80, followed by fault in weighing (73.00), further followed by lack of quality of produce (64.00), high marketing costs (60.80) and price fluctuations (56.80) *etc.* The other major constraints felt by wholesalers are lack of cold storage facilities, high market fee, lack of marketing information and lack of infrastructure facilities at market committee *etc.* The Garrett rankings of wholesaler are given in Table 2.

In case of retailer also, similar kind of opinions were reported as wholesaler, where the major rank was given to spoilage losses (80.8), followed by fault in weighing (70.1), further high marketing costs (68.9), lack of marketing information (59.2) and lack of quality of produce (53.8) *etc.* The Garrett rankings of retailer are represented in Table 3. Similar results were also reported by [1, 2, 4, 5]

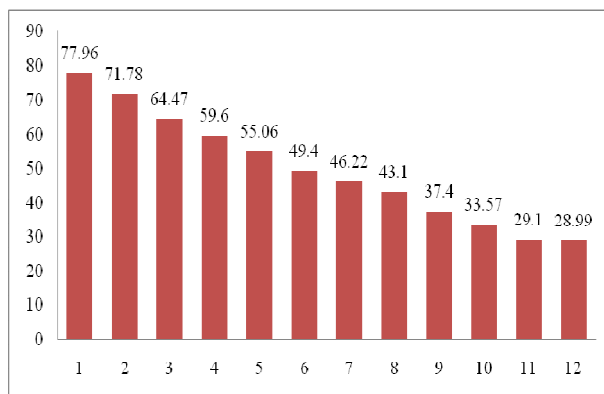
**Table 1: Constraints Analysis of Farmers in Potato Marketing**

S. No	Constraints	Mean Score Value	Garrett Ranking
1	Price fluctuations	77.96	1
2	No storage facility	71.78	2
3	High marketing costs	64.47	3
4	High cost of cultivation	59.60	4
5	More post harvest losses	55.06	5
6	Very high commission charges	49.40	6
7	Fault in weighing	46.22	7
8	Lack of market information about prices	43.10	8
9	Transport problem	37.40	9
10	Malpractices in auction	33.57	10
11	Inadequate facilities at the market	29.10	11
12	No facilities for personal stay at the market	28.99	12

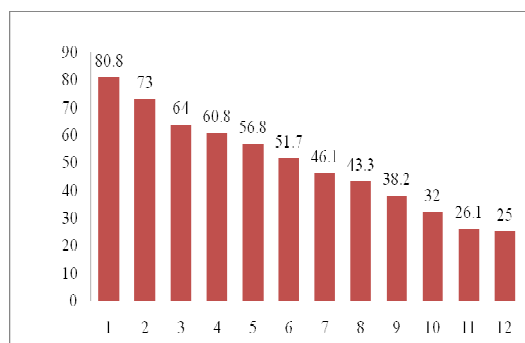
**Table 2: Constraints Analysis of Wholesaler in Potato Marketing**

S. No	Constraints	Mean Score Value	Garrett Ranking
1	More spoilage losses	80.80	1
2	Fault in weighing	73.00	2
3	lack of quality produce	64.00	3
4	High marketing costs	60.80	4
5	Price fluctuations	56.80	5
6	No storage facility	51.70	6
7	Lack of market information about prices	46.10	7
8	Inadequate facilities at the market	43.30	8

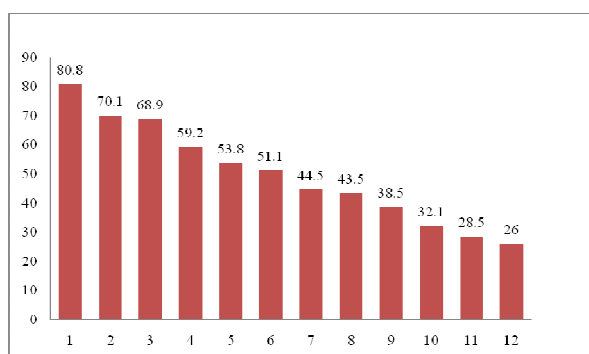
9	High Market Fee	38.20	9
10	Presence of exploitative middlemen	32.00	10
11	Packaging problem	26.10	11
12	Transport problem	25.00	12



**Figure 1: Constraints Analysis of Potato Farmers**



**Figure 2: Constraints Analysis of Potato Wholesaler**



**Figure 3: Constraints Analysis of Potato Retailer**

**Table 3: Constraints Analysis of Retailer in Potato Marketing**

S. No	Constraints	Mean Score Value	Garrett Ranking
1	More spoilage losses	80.8	1
2	Fault in weighing	70.1	2
3	High marketing costs	68.9	3
4	Lack of market information about prices	59.2	4
5	lack of quality produce	53.8	5
6	Price fluctuations	51.1	6
7	Presence of exploitative middlemen	44.5	7
8	Packaging problem	43.5	8

9	No storage facility	38.5	9
10	High Market Fee	32.1	10
11	Inadequate facilities at the market	28.5	11
12	Transport problem	26.0	12

### Policy Recommendations

Potato growers in the study area faced a problem regarding sharp decline in the prices of bumper harvest. So, there is a need for providing facilities/concessions, for promoting the export of the produce in case of glut in the market to stop the distress sale. Production price should be stabilized by fixation of minimum and maximum prices. Provision of cold storage facilities nearer to farmers at village, which mainly control the cost of seed potato, organizing farmers into larger producer groups can benefit the entire marketing process. These groups will then be better placed in terms of collective pre and post-harvest management, reduced transaction costs and higher bargaining power. Farmers should be educated and trained in post harvest handling of potatoes in cleaning, grading and packing in gunny bags, such as they do not weigh more than 40 Kgs, so that they maintain good quality and get good prices. The organized retail outlets will work directly with farmers, to improve yields by enabling them to obtain quality input supplies, modern farm technology and timely credit at reasonable interest rates. Promote the processing industry through simplified tax regime and other relevant incentives in credit. There is a need to establish more processing units, for value addition of potatoes and purchase the produce directly from the farmers, so that, they may also get the benefit of the plant and increases the producer share in consumer rupee. The facilities of packing, grading and transportation of potatoes to distant markets should be subsidized so that, the farmers get remunerative price of their produce. Modernize the APMCs, by providing better infrastructure in the market place such as modern weighing machines, canteen and accommodation facilities for farmers, closed places for trading, better roads, better hygiene, better waste disposal system *etc.*

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